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TO: Air Management Team, Statewide Permit Team, Statewide Compliance Team

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SUBJECT: Federal Guidance for Establishing Limitations on Potential to Emit in Air Pollution Control Permits¹

Potential to emit is defined by s. NR 400.02(127), Wis. Adm. Code as “the maximum capacity of a stationary source to emit any air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air contaminant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation is enforceable by the administrator.” Potential to emit is also defined by s. NR 405.02(25), Wis. Adm. Code as “the maximum capacity of a stationary source to emit an air contaminant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit an air contaminant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.” A very similar definition to that of NR 405.02(25), Wis. Adm. Code is included under s. NR 408.02(28), Wis. Adm. Code. All of these definitions mirror federal definitions of the term contained under Federal PSD, nonattainment area, and operation permit regulations.

Over the years USEPA has issued several guidance documents that permitting agencies are to use when establishing conditions within air pollution control permits that have the purpose of restricting potential to emit. Wisconsin’s air permitting programs have historically tried their best to incorporate the guidance set forth by USEPA, per a memorandum of understanding between the State and USEPA Region 5, however with the multitude of guidance documents USEPA has issued, this is a difficult task. This memorandum is intended to summarize the most program influencing USEPA guidance on the topic for use by permit writers when establishing such conditions.

On June 13, 1989, following court decisions in regard to the enforceability of permit conditions, USEPA issued what is arguably the most significant guidance document on the topic of limiting potential to emit. The guidance document, entitled [“Guidance on Limiting Potential to Emit in New Source Permitting”](#) addressed three issues regarding appropriate means of restricting potential to emit:

1. Types of permit limitations can legally limit potential to emit.
2. Averaging times for production limitations to be considered enforceable as a practical matter.
3. Limiting potential to emit as a means of circumventing the preconstruction review requirements of major source review.

In addressing these issues, the June 13, 1989 guidance provided the following:

- Limitations must be established using production or operational based restrictions that are based upon the design capacity of the source under these restrictions.
- Production and operational limits must be stated as conditions that are enforceable independent of one another.
- The limits on production and operation should be supported by adequate record keeping requirements to allow the permitting agency to verify a source’s compliance with its limits.
- Permits requiring add-on controls operated at a specified efficiency level should include operating parameters and assumptions the permitting agency depended upon to determine that the control equipment would have a given efficiency.
- The time over which production and operational limits extend should be short term and generally not exceed one month.

¹This document is intended solely as guidance and does not contain any mandatory requirements except where requirements found in statute or administrative rule are referenced. This guidance does not establish or affect legal rights or obligations and is not finally determinative of any of the issues addressed. This guidance does not create any rights enforceable by any party in litigation with the State of Wisconsin or the Department of Natural Resources. Any regulatory decisions made by the Department of Natural Resources in any matter addressed by this guidance will be made by applying the governing statutes and administrative rules to the relevant facts.

- In instances where it is not reasonable to hold a source to a one-month limit, an annual limit rolled on a monthly basis may be used.
- Sham permits are not allowed under the Clean Air Act.

Two exceptions to the production and operational based limits were allowed by the June 13, 1989 guidance. The first concerns instances where the permitting agency determines that setting operating parameters for control equipment is infeasible. In this instance, short term emission limits (e.g. lb/hour) would be sufficient to limit potential to emit, provided that such limits reflect the operation of the control equipment and the permit includes requirements to install, maintain and operate a continuous emissions monitoring (CEM) system. The permit must also contain conditions to retain CEM data and specify that the CEM data be used to determine compliance with the emission limit.

The second exception to the production and operational based limit requirement was allowed for volatile organic compound (VOC) surface coating operations where no add-on control is employed. If the permitting agency determines for a particular surface coating operation that operating and production parameters are not readily limited due to the wide variety of coatings and products and due to the unpredictable nature of the operation, emission limits coupled with a requirement to calculate daily emissions may be used to restrict potential to emit. The source must be required to keep the records necessary for this calculation, including daily quantities and the VOC content of each coating used. Although this exception requires a calculation of daily emissions, it does not require the calculation to be made daily. The permit may require this calculation be made on a less frequent basis, provided the calculation is performed at least monthly and provides daily emission results that are based upon the daily records that have been taken. USEPA has taken a similar approach to sec. 112 of the Clean Air Act hazardous air pollutants (HAPs) in a [January 25, 1995](#) memorandum, whereby addressing the effectiveness of an enforceable in practice limitation on VOC has on these HAPs. EPA also notes in this memorandum that not all sec. 112 HAPs are VOCs as well, and consideration must be given to this fact when testing the effectiveness of the VOC limit on HAP emission potential.

In implementing the requirements of the June 13, 1989 guidance, Wisconsin developed a method of establishing production based limits for surface coating operations using equations that have the intent of limiting potential to emit, but were not supported by the record keeping and calculation requirements. This method was referred to as the equivalent gallons method. On [April 25, 1996, USEPA Region 5 issued a letter to Wisconsin](#) stating that this method of restricting potential to emit was not considered enforceable as a practical matter because permit conditions in this approach can not be enforced independently of one another.

Another approach that has been used for limiting the VOC PTE from surface coating operations in the past has been to restrict the amount of VOC used by such an operation under the assumption that all VOC used is emitted. [USEPA informed the department on June 7, 1999](#) that such a method of limiting PTE is equivalent to an emission limit approach, and thus such limits must be coupled with requirements to calculate daily emissions and the other compliance monitoring requirements associated with the June 13, 1989 exception for surface coating operations.

Relief from the daily record keeping requirements has been allowed by USEPA in a memorandum dated [January 25, 1995](#), which allows sources that emit significantly less than the threshold that is sought to be avoided. "Significantly less than" has been interpreted to be 50% by USEPA. For instance, surface coating sources that are seeking to avoid consideration as a major source in a severe ozone nonattainment would require an emission limitation that equates to no more than 12.5 tons per year. Under this scenario, an emission limitation can be used and compliance monitoring that is equivalent to that which would be used for a production based limitation is considered adequate. It should be noted that when permitting a source, the term "emit", when used in the context of this guidance from USEPA, refers to the sources potential to emit, as to be established in the permit.

There have been several other guidance documents issued by USEPA regarding the topic of limitations on potential to emit, however most of these either establish guidance for permitting agencies to use when developing regulations to better handle permitting responsibilities (such as the surface coating operation criteria under the specific categories of exempt sources within ch. NR 406 and NR 407, Wis. Adm. Code), and may not be applicable under Wisconsin's permitting programs. USEPA however has also issued a number of guidance documents for estimating potential to emit for specific types of sources, such as [emergency generators](#) and [grain elevators](#). While the specifics of such guidance documents is not discussed here, consideration should be paid to them in cases in which they may be relevant.